

(PCT Article 36 and Rule 70)

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2005/000155

Box No. I

Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-70 as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. 3-36 as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* 1-2 received by this Authority on 04.11.2005
- nos.* _____ received by this Authority on _____
- ☒ the drawings:
- sheets 1/15-15/15 as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☒ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	1-36	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-36	NO
Industrial applicability (IA)	Claims	1-36	YES
	Claims		NO
2. Citations and explanations (Rule 70.7)			
<p>Document 1: WO 03/055903 A1 (National Institute of Advanced Industrial Science and Technology), 10 July 2003</p> <p>Document 2: K. HIRATSU et al., Plant J., 2003, Vol. 34, No. 5, pages 733 to 739</p> <p>Document 3: S. STEINER-LANGE, Plant J., 2003, Vol. 34, No. 4, pages 519 to 528</p> <p>Document 4: J. L. RIECHMANN, Proc. Natl. Acad. Sci. USA, 1996, Vol. 93, No. 10, pages 4793 to 4798</p> <p>Document 5: WO 03/013227 A2 (Mendel Biotechnology Inc.), 20 February 2003</p> <p>Claims 1 to 36 do not involve an inventive step in the light of documents 1 to 5. Documents 1 and 2 indicate that it is possible to regulate the expression of a target gene by causing a plant to produce chimeric proteins wherein a functional peptide for transforming a given transcription factor into a transcription inhibitor has been fused to with transcription factor such as EIN3 or CUC1 in order to regulate the transcription of the target gene, which is the gene that is transcribed by means of the aforementioned transcription factor, in said plant. In addition, document 3 indicates that it is</p>			

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

possible to produce sterile plants by damaging the MYB26 gene, which is a gene that codes a transcription factor. Such being the case, it would have been easy for a person skilled in the art to conceive of producing sterile plants by selecting the transcription factors that are presented in documents 3 to 5 as the transcription factors in the inventions disclosed in documents 1 and 2; producing DNA which encodes chimeric proteins that comprise a functional peptide for transforming a given transcription factor into a transcription inhibitor; and then expressing said DNA within a plant in order to regulate the transcription of the target gene, which is the gene that is transcribed by means of the aforementioned transcription factor, in said plant.

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Supplemental Box Relating to Sequence Listing

Continuation of Box No. I, item 2:

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this report was established on the basis of:
- a. type of material
- ☒ a sequence listing
- ☐ table(s) related to the sequence listing
- b. format of material
- ☐ in written format
- ☒ in computer readable form
- c. time of filing/furnishing
- ☐ contained in the international application as filed
- ☒ filed together with the international application in computer readable form
- ☐ furnished subsequently to this Authority for the purposes of search and/or examination
- ☐ received by this Authority as an amendment* on _____
2. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
3. Additional comments:

* If item 4 in Box No. I applies, the listing and/or table(s) related thereto, which form part of the basis of the report, may be marked "superseded."